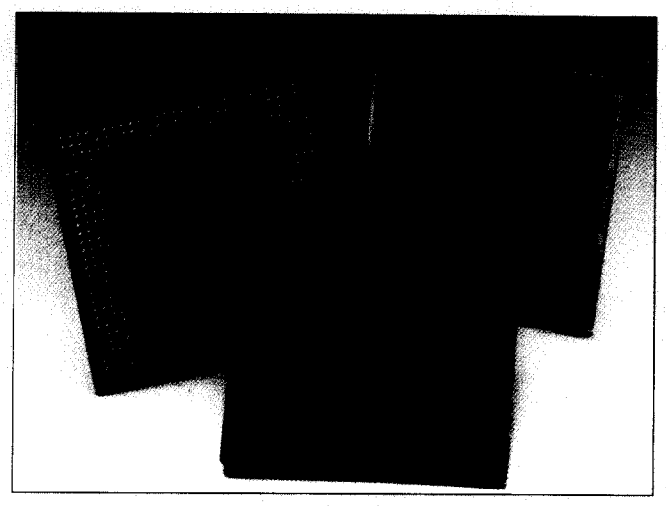
National to capture share in RF silicon?



When launching its new PLLatinum series dual phase-locked loop (PLL) ICs, National Semiconductor says that it "expects to capture significant share of the world RF silicon market and is rapidly displacing its competitors as the preferred supplier in the HF, radio transceiver components market". It projects that the value of the total wireless silicon market will rise from $1.49bn in 1994 to $3.23bn in 2000. With synthesizers in every radio transceiver, National expects the PLL portion of this market to be worth over $150m in 1994 alone.

National's PLL customer base includes the many companies which design and manufacture wireless comms products including such digital standards as GSM, DCS1800, JDC and PHS. The devices can also be used for private mobile radio, DBS and GPS systems where light weight, small size for portability plus low operating voltage, low noise and higher operating frequencies are sought after.

The new PLL series is fabricated in National's ABiC IV BiCMOS process which allows integration of high performance analogue and digital functions. The devices operate with the lowest noise floor of any PLL on the market, says Dieter Strohle, manager of National's comms group in Europe: "This is especially important to designers of the latest generation of digital cellular and PCS systems, because even small amounts of PLL-generated noise impact directly upon the radio's receiver sensitivity and may inject unwanted signals to the transmit stage. Our PLLatinum dual PLL series reduces this noise to almost negligible levels. we have accomplished this by paying close attention to the design of the charge pump, package pin-outs and design techniques learned from the PLLatinum series of single PLLs."

Three models have been launched: LMX2330, LMX2331 and LMX 2332, in order to satisfy all requirements. Alongside the primary (RF) PLL, (1.2, 2.0, and 2.5 GHz respectively), a second PLL has been integrated that operates at frequencies up to 510 MHz. This, it says, will prove useful for applications where a second IF stage is used in the receiver, an architecture common in most cellular phones. Packaged in ultra-small 20-pin, 1 mm thick TSSOP, the PLLatinum offers the "smallest package size for this kind of product at a competitive price."

BT plans radio loop

In what could be the start of the largest deployment of microwave radio technology in the UK, British Telecom is planning to introduce fixed links between customers in the local loop phone network.

BT is said to have placed an order with DSC Communications which has been developing spread-spectrum CDMA radio technology in the UK. DSC has 1.5 to 2.5GHz systems already on order is presently expanding its manufacturing facility near Heathrow. BT has been evaluating a variety of wireless access technologies – including a 1.8 GHz DECT trial in Birmingham – is expected to chose DECT for urban areas etc. and SS CDMA for rural areas

Toshiba to market wireless LAN

Toshiba Corp. has announced the introduction of wireless LAN equipment, including two types of wireless LAN cards, that can construct powerful wireless LAN among handheld terminals and portable computers.

Toshiba's new product, WaveCom, demonstrates just how powerful state-of-the-art wireless LAN can be. The hardware consists of a choice of two types of LAN cards, one for each of the PCMCIA and ISA interfaces, each accompanied by dedicated driver software. The cards and software form the basis of networks that users can easily enter and leave. The company will also introduce Access Point, wireless bridge equipment that allows a wireless LAN to be connected to wired LAN systems.

WaveCom offers the following features:

1. An original data transfer method under which a terminal receiving a signals returns an acknowledge signal, assuring stable data transfers.

2. Data transfer at up to 2-megabits per second, the highest transfer rate available for PCMCIA- and ISA-based systems. The cards operate at a frequency of 2.4 GHz.

Sample shipments of the WaveCom wireless LAN cards will start from June 1, 1995 at a price of 125 000 yen for PCMCIA-type LAN card. Access Point will become available on August 1, 1995 at a sample price of 350 000 yen. Sales of 20 000 units of WaveCom in 3 years are expected.

The new product is a joint development with the Computer Systems Engineering Division of Toshiba America Information Systems Inc.